Professional virtues: illuminating the path to ethical research in oral health

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INTRODUCTION

Ethical research is vital in pursuit of advancing scientific knowledge as well as promoting and improving oral health outcomes that are in accordance with the needs of communities. Guidelines, principles and duties outlined in various international and national professional associations serve to guide ethical research in healthcare, including oral health.

International guidelines, amongst others, the Belmont Report and the Declaration of Helsinki, specify several essential principles and numerous ethical guidelines to be adhered to by health researchers.[1,2] In like manner, local guidelines established by the Health Professions Council of South Africa advance the basic ethical principles in health research and the fundamental duties of healthcare researchers, namely "duties to research participants; duties to research colleagues and other professionals; duties to health researchers themselves; duties to society; duties to the healthcare profession; duties to animals and duties to the environment".[3]

These various international and national guidelines and ethical standards for health research are primarily constructed within a principle-based framework.[4] Although these numerous research guidelines and ethical standards in health research are indeed essential in guiding ethical research "scientific misconduct continues to be a problem".[5] "The most common forms of misconduct include fabricating the process and outcomes of research, and failure to protect human participants by giving them incomplete or inaccurate information about the risks of the research."[5,6]

In the vast landscape of research ethics, there is limited emphasis on the importance of supplementation of the principles and duties with professional virtues that are part and parcel of the research process. While ethical principles and duties provide an essential framework for guiding ethical conduct, they understate the significance of the development of the virtuous character of the researcher.

This article aims to initiate a meaningful conversation regarding the significance of cultivating professional virtues as essential components of ethical behaviour in the realm of oral healthcare research. More specifically, this article shows that professional virtues can supplement the principles of healthcare research and support the duties of the researchers by ensuring that these guidelines are not simply followed, but are understood as intrinsically valuable by researchers.

Furthermore, the professional virtues suggested in this article are intended to open a dialogue among oral health researchers regarding the types of professional virtues and excellence in research that they should strive towards and makes recommendations for mentoring these professional virtues in oral health research.

This article concludes that professional virtues have a meaningful role to play in ethical research discourse and mentoring, by illuminating the path to a deeper commitment to excellence in ethical research conduct.

Virtue-based ethics

It is considered that virtue has a teleological function both in respect to the attainment of a fulfilled life as well as in the attainment of excellence in a professional context.[8] This teleological viewpoint has been applied to healthcare practice in the form of "an ethic based in the notion of the good as an end of moral acts wherein 'good' is defined in terms of the nature of the activity in question, that for which the activity exists".[8]

Aristotle, who is widely regarded as the forefather of teleological thinking, believes that every living being in the natural world instinctively strives to achieve a specific and intrinsic final purpose and, conversely, this final purpose is the ultimate good for all living beings.[9] Concerning the final purpose of human beings, Aristotle considers that this is to achieve a level of *eudaimonia*, generally understood as happiness but best interpreted to signify "a fulfilled life".[10] A characteristic aspect of Aristotle's moral argument is that people cannot achieve happiness and be accomplished in life if they do not develop certain virtues and, importantly, exercise these virtues persistently.[9]

Professional virtues

The term "virtue" finds its origins in the Latin word *virtus* which can be generally translated as excellence; for Aristotle this is *arête*.[9] "Virtue, therefore, refers to an excellence of its kind."[11] A virtue can be defined as "trait of character, manifested in habitual action, that it is good for a person to have".[12] In turn, traits of character can be defined as "relatively stable and enduring psychological dispositions or tendencies to act in characteristic ways".[11] "Since virtues are excellent traits of character, they are dispositions to act well" and these traits are distinct from "abilities, skills, talents and a person's temperament"; the opposite of virtue is considered vice.[11]

On such a teleological account, in which virtues are assumed from the supposed end for human beings, professional virtues are similarly assumed from evaluating

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the sort of character traits that assist professionals to meet the end(s) of the specific profession.[11] In other words, a virtue is defined as that quality that aids something or someone to fulfil their function well.[11] The virtues of a professional are those traits that allow them to fulfil their function(s) well, otherwise stated allows them to be a good professional.[11] This teleological perspective is useful in the context of healthcare practice and healthcare research as "it links moral excellence (the moral virtues) with the kind of person the physician should be and with the excellence of the work he does specific to his profession".[13] From such a perspective, "professional virtues are traits of character (or personality) that help a professional to serve a profession's purpose(s) well".[11] Spielthenner states that:

> Just as Aristotle's virtues are derived from an (assumed) end of human beings, so are professional virtues those character traits which a professional needs for serving the end of his profession. Calmness is arguably a virtue of airline pilots because it is needed when dealing with challenging weather conditions (being panicky would be a vice), and compassion is a virtue of doctors if this trait is needed to serve the goal of the medical profession well.[11]

In the context of research ethics, an appeal to the development of professional virtues is meaningful as it allows for a personal connection with the researcher.[4] "Personal and professional development consists in becoming a better person and a better scientist, not in internalising a long list of rules, duties and responsibilities: a virtue like honesty has a close connection to one's personal and professional life, whereas rules like 'conduct research in human beings only if the risk of the research are reasonable in relation to the benefits to the subject and society' does not."[4,14]

Some of the virtues that have been proposed as being important for researchers to develop and demonstrate during healthcare research are:
- "courage (standing up at the appropriate time for what one believes in despite some potential personal cost)"[4,14]
- "respectfulness (treating others with the respect they deserve)"[4,14]
- "resoluteness (staying with one's work, forging on despite difficulties, within the bounds of reason)"[4,14]
- "sincerity (being honest and truthful when appropriate, believing what you say)"[4,14]
- "humility (giving due weight to one's strengths and weaknesses)"[4,14]
- "reflexivity (being critical enough of one's work, making due allowances for one's own biases)"[4,14]

Other virtues that have been suggested as significant in assisting health researchers in striving towards excellence in research include:
- "fairness (treating people fairly)"[4]
- "openness (sharing knowledge and resources when appropriate)"[4]
- "resourcefulness (making good use of one's resources, finding new resources)"[4]
- "conscientiousness (taking due care in one's work, being meticulous in research)"[4]
- "flexibility (being able to change one's plans when necessary)"[4]
- "integrity (reasonably acting in accordance with one's values, avoiding hypocrisy)"[4]

At this juncture, it is important to highlight that the proposed list of professional virtues enumerated in this article are not meant as an exhaustive list, but are rather aimed at encouraging oral health researchers to reflect on the professional character traits they should aspire to exemplify.

Lastly, research has shown that the development and practice of these professional virtues is particularly valuable when it comes to mentoring upcoming researchers.[4] Resnik argues that mentors can assist students in appreciating the significance of fulfilling their duties as researchers and adhering to the principles and guidelines, thus fostering their growth as virtuous researchers.[4] He further considers that "scientific mentors can reflect upon the qualities of the virtuous researcher and try to help their students develop these traits".[4]

CONCLUSION

This article is intended to shed light on the significance of incorporating professional virtues in ethical discourse in the context of research in oral health. The list of virtues proposed in this article is intended to serve as a starting point to spark a dialogue about the various professional virtues and the pursuit of excellence in oral health research. Moreover, these professional virtues are meant to inspire reflection and understanding that the cultivation of professional virtues goes beyond adhering to ethical principles and guidelines; it involves the development of character traits that guide researchers towards excellence in ethical behaviour and fosters a culture of integrity within the research community. By initiating this conversation about professional virtues, this article emphasises that a broader exploration of the qualities and values in research illuminates the path and contributes to ethical research practices and propels researchers to strive towards excellence.

Future research on professional virtues for oral health researchers should ideally be conducted through empirical studies involving oral health researchers themselves. This can provide valuable insights into the specific professional virtues relevant to the field of oral health.

Finally, the cultivation and ongoing refinement of the professional virtues in health research may serve as an added safeguard against engaging in unethical research behaviour.

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